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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/267,973 03/12/99 TURKEVICH

L 12161.2

EXAMINER

IM52/0529

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GRAY, J

ART UNIT

PAPER NUMBER

10

1774

DATE MAILED:

05/29/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**09/267,937**

Applicant(s)  
**TURKEVICH ET AL**

Examiner  
**Jill Gray**

Art Unit  
**1774**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Mar 2, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 9, 12-16, 50, and 55-66 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9, 12-16, 50, and 55-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 9 20) ☐ Other:

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## **DETAILED ACTION**

### ***Specification***

1. The use of various trademarks have been noted in this application. All should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Response to Amendment***

Prior art reference Japanese Patent Abstract JP 60-126310 has been withdrawn in view of applicants arguments.

The objection of claims 9 and 12-16 is withdrawn in view of newly cited prior art.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 50 and 55-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabe '299 in view of Japanese Patent Abstract JP 63288216 (Oshida), for reasons of record.

Kawabe teaches an electret article usable in its final shape, comprising a fibrous porous article such as a nonwoven fabric, wherein the nonwoven fabric can be melt-blown or spun-bonded thermoplastic material with ferroelectric materials, such as barium titanate, incorporated therein. In addition, Kawabe teaches that the final shape can be a face mask as set forth by applicants, wherein the face mask has enhanced dust collection efficiency. See Example 4. The thermoplastic materials can be polyolefin, such as polypropylene. Though not required for broad claim 50, Kawabe is silent as to the amount of barium titanate incorporated. Oshida teaches thermoplastic fibers having ferroelectric material incorporated therein in an amount set forth by applicants, further teaching that his fibers can be used as a dust collection filter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the ferroelectric material of Kawabe in an amount as known in the art and as taught by Oshida, with the reasonable expectation of success of obtaining an article suitable for dust collection. As to the fiber diameter, this property is inherent in the fibers of Kawabe based upon the disclosed fiber making processes, such as melt-blowing and spun-bonding.

As a result, it would have been obvious to one of ordinary skill in the art at the time the invention was made to produce a face mask essentially as claimed in present claims 50 and 55-66, motivated by the combined teachings of Kawabe and Oshida.

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4. Claims 9 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabe in view of Oshida, as applied above to claims 50 and 55-66, further in view of PCT Publication No. WO 96/13319 (Pike).

Kawabe and Oshida are as set forth above, additionally teaching multicomponent fibers as required by claim 9. See Kawabe Example 4 and Oshida, abstract. Pike teaches nonwoven filter media comprising multicomponent fibers wherein the filter media is electrostatically treated to form electret filter media. Accordingly, the combined teachings of Kawabe, Oshida and Pike would have rendered obvious a face mask comprising multicomponent fibers, essentially as claimed in claims 9 and 12-16.

#### ***Response to Arguments***

5. Applicant's arguments filed March 19, 2001 have been fully considered but they are not persuasive.

Applicants argue that Kawabe teaches the addition of barium titanate does not enhance the electret field outside an electret article, thus teaching away from the technology of the present invention.

In this regard, present claim 50 only requires that the fibers have been exposed to an electric field. Kawabe clearly teaches that his fibers have been exposed to an electric field. The spontaneous polarization of the ferroelectric material is an inherent property.

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Applicants argue that Kawabe does not teach barium titanate and polyolefin (e.g. polypropylene) composite material.

In this concern, applicants' claims are not necessarily limited to polyolefin materials. Note claims 9 and 50, which require a thermoplastic polymer.

Applicants argue that the reliance on JP 63288216 is inappropriate.

The examiner disagrees. Both Kawabe and Oshida teach multicomponent fibers having utility as filter media for dust collection. Hence, Kawabe and Oshida are drawn to similar fields of endeavor.

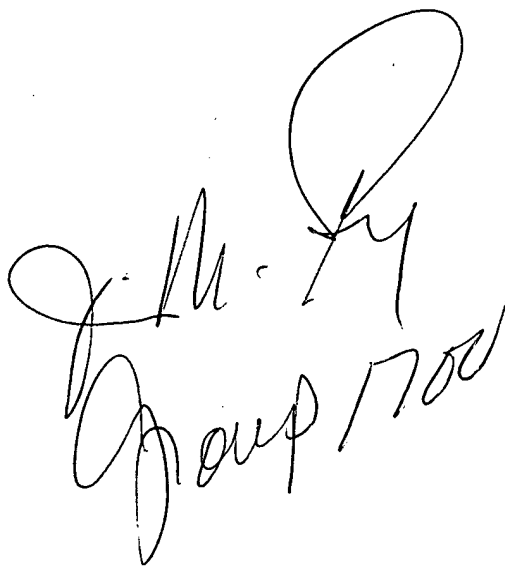
The comparative data in the specification has been fully considered, but is not found to be sufficient to overcome the *prima facie* showing of obviousness. In particular, the data is not commensurate in scope with the claims. The evidence provided shows superior results when polypropylene is combined with barium titanate. However, the claims are not so limited. There is no evidence of record that any combination of thermoplastics and ferroelectric materials (claims 9 and 50) would result in superior or unexpected properties. Claim 50 is not limited to any amount of particles, and there is no evidence that any amount of ferroelectric particles would function as intended. Applicants have not clearly distinguished that which they regard as their invention from the prior art.

No claims are allowed.

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*Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. M. Gray whose telephone number is (703) 308-2381.

A handwritten signature in black ink, appearing to read "J. M. Gray". The signature is stylized with a large, looping initial "J" and a cursive "Gray".

jmg

May 21, 2001